



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
CARIBBEAN ENVIRONMENTAL PROTECTION DIVISION
CITY VIEW PLAZA, SUITE 7000
#48 165 RD. KM 1.2
GUAYNABO, PR 00968-8069

JUN 10 2013

CERTIFIED MAIL-RETURN RECEIPT REQUESTED

Article Number: 7003 2260 0002 4127 6301

Irma López
Executive Director
Compliance and Quality Control Directorate
Puerto Rico Aqueduct and Sewer Authority
P.O. Box 7066
San Juan, Puerto Rico 00916-9990

**Re: Compliance Evaluation Inspection
Guánica Wastewater Treatment Plant
NPDES Permit Number PR0020486**

Dear Mrs. López:

On May 7, 2013, the United States Environmental Protection Agency (EPA) conducted a Compliance Evaluation Inspection (CEI) at the Guánica Wastewater Treatment Plant. The purpose of the inspection was to assess PRASA's operational and maintenance practices at the facility.

Enclosed you will find a copy of the Water Compliance Inspection Report, which summarizes our findings during the CEI. Within forty five (45) calendar days of receipt of this letter, please respond with the actions PRASA has taken or will be taken to address the findings of the inspection.

Should you have any questions, feel free to contact me or Miguel A. Batista of my staff at (787) 977-5823.

Cordially,

Jaime A. Géliga
Chief
Municipal Water Programs Branch
Caribbean Environmental Protection Division

Enclosure

cc. Roberto Ayala, EQB
Juan C. Perez, PRASA
David Velázquez, PRASA
Nashaly Berrios, PRASA
Jeannette Velez, PRASA



United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Form Approved.
OMB No. 2040-0057
Approval expires 8-31-98

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 N 2 5 3 P R 0 0 2 0 4 8 6 11 12 1 3 0 5 0 7 17 18 C 19 R 20 1					
Remarks					
2					
Inspection Work Days Facility Self-Monitoring Evaluation Rating B1 QA Reserved					
6 2 0 69 70 1 71 72 73 74 75 80					

Section B: Facility Data

Name and Location of Facility Inspected (for Industrial users discharging to POTW, also include name and NPDES permit number) GUÁNICA WASTEWATER TREATMENT PLANT YAGUER ST. Guánica, P.R. 00653	Entry Time/Date 9:45 am 05/07/2013	Permit Effective Date 12/01/2008
	Exit Time/Date 12:05 pm 05/07/2013	Permit Expiration Date 11/30/2013
Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s) 787-821-2865 See attached report for on-site representative	Other Facility Data	
Name, Address of Responsible Official/Title/Phone and Fax Number(s) Héctor Gierbolini, Executive Regional Director PRASA South Region	Contacted <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

Section C: Areas Evaluated During Inspection (Check only those areas evaluated)

<input checked="" type="checkbox"/> Permit	<input checked="" type="checkbox"/> Flow Measurement	<input checked="" type="checkbox"/> Operations & Maintenance	<input type="checkbox"/> CSO/SSO (Sewer Overflow)
<input checked="" type="checkbox"/> Records/Reports	<input checked="" type="checkbox"/> Self-Monitoring Program	<input checked="" type="checkbox"/> Sludge Handling/Disposal	<input type="checkbox"/> Pollution Prevention
<input checked="" type="checkbox"/> Facility Site Review	<input type="checkbox"/> Compliance Schedules	<input type="checkbox"/> Pretreatment	<input type="checkbox"/> Multimedia
<input checked="" type="checkbox"/> Effluent/Receiving Water	<input type="checkbox"/> Laboratory	<input type="checkbox"/> Storm Water	<input type="checkbox"/> Other: Pump Stations

Section D: Summary of Findings/Comments (Attach additional sheets of narrative and checklists as necessary)

See attached report for findings.

Name(s) and Signature(s) of Inspector(s) Miguel A. Batista, Environmental Engineer	Agency/Office/Phone and Fax Numbers CEPD-MWPB (787) 977-5823 (ph) ; (787) 289-7104 (fax)	Date 6-7-13
Signature of Management QA Reviewer Jaime A. Géliza, Chief Municipal Water Programs Branch	Agency/Office/Phone and Fax Numbers CEPD-MWPB (787) 977-5840 (ph) ; (787) 289-7104 (fax)	Date 6-7-13

**Summary of Findings/Comments
Water Compliance Inspection Report Form
(EPA Form 3560-3)**

COMPLIANCE EVALUATION INSPECTION

Facility Name: Guánica WWTP
NPDES Permit Number: PR0020486
PRASA Representative: Amalio Quirós, Plant Operator
Julio I. Fraticelli, Plant Operator

I. BACKGROUND

A Compliance Evaluation Inspection (CEI) was conducted on May 7, 2013 at the Guánica WWTP. The CEI consisted of an opening interview to discuss the purpose of the inspection and to request information about the facility. The inspection consisted of a site tour to assess the operational and maintenance conditions, document's review, and a closing interview to discuss preliminary findings. Finally, a grab sample of the effluent was collected to determine compliance with the effluent limitations established by the permit at the time of the inspection.

II. PLANT OPERATION AND MAINTENANCE

The Guánica WWTP consists of two treatment modules. One module is a 0.5 MGD activated sludge conventional package plant (Old Plant) and the second module is a 1.25 MGD Biological Nutrient Removal (BNR) treatment plant (New Plant). At the time of the inspection the BNR module was not in operation.

At the time of the inspection, Mr. Amalio Quirós and Mr. Julio I. Fraticelli were acting as Plant Operators for the Guánica WWTP. Mr. Quirós has obtained the certification as a Wastewater Treatment Plant Operator Level IV # 2099 which expires on April 22, 2014. Mr. Fraticelli has obtained the certification as a Wastewater Treatment Plant Operator Level IV # 2249 which expires on March 15, 2015.

III. FACILITY SITE REVIEW – SUMMARY OF FINDINGS

A. Preliminary Treatment

1. Bar Screens/Comminutors

- The plant has two entrance channels: one channel has a bar screen, and the other channel has a comminutor.
- The entrance channel with the bar screen is used when the comminutor goes out of service. At the time of the CEI, the bar screen was not in use.
- The comminutor was in operation at the time of the CEI.

2. Influent Wet Well/Influent pumps

- The wet well was clean, and had no solids.
- The plant has six (6) influent pumps: three (3) for the old plant, and three (3) for the new plant. All units of the new plant were in operation. The three units at the new plant were in operation. Units # 1 and # 3 at the old plant were in operation, but unit # 2 was out of service.

3. Grit Removal Mechanism

- The facility has two (2) Pista type grit removal systems. Both units were in operation.
- There is one screw conveyor to collect the grit from both grit removal systems. It was in operation.

- B. Secondary Treatment
1. Activated Sludge Module
 - Old sludge and grease were observed at the surface of the clarifier.
 - Grease and solids were observed at the clarifier's center well or inner baffle.
 - The sludge blanket at the clarifier was approximately 20 inches.
 - There are three (3) blowers. Units # 1 and # 2 were in operation. Unit # 3 was in stand-by mode.
- C. Chlorination/De-chlorination Facilities
- There are three (3) chlorine contact chambers at the facility. One chlorine contact chamber was in use, the other two units were out of operation.
 - The surface of the chlorine contact chamber had some floatables and grease. "Pin-flocs" were observed discharging through the "V-type" effluent weirs.
 - The chlorine inventory at the time of the inspection consisted of four (4) - two thousand gallon pound chlorine cylinders (2,000 lbs): one (1) chlorine cylinder was in use, two (2) chlorine cylinders were empty, and one (1) chlorine cylinder was full.
 - The plant has two (2) chlorine leak detectors as reference instruments. When a chlorine leak was simulated, both units did work. Both units were properly calibrated.
 - The exhaust fan was in operation.
 - The automatic chlorine dosifier device was in operation. It was calibrated on April 25, 2012.
 - The hand-rails at the dechlorination room were broken.
 - The three (3) 150-lbs CO₂ cylinders were empty.
- D. Sludge Handling
- The aerobic digester chamber was in operation. Solids accumulation was not observed at its surface.
 - The plant has two (2) unroofed sludge drying beds. Both units were empty.
 - The sludge belt filter press was in operation.
- E. Alternate Power Units (APU)
- The new 750 KVA Alternate Power Unit (APU) has a 5,000-gallon diesel tank capacity.
 - According to the operator, the diesel level ruler did not work. The operator has not a safe access to add diesel for this unit.
 - The addition of water for the new APU's radiator, results unsafe as well for the operator who needs to stand on the APU's motor to perform this task. This unit has no stairs or a safe mechanism to access it.
 - The power outage simulation was not performed.
- F. Auto-Samplers
- This facility has two auto-samplers. At the time of the CEI, the temperature inside both the influent and effluent auto-samplers was 3 °C. Both temperatures were within the acceptable range of less or equal to 6 °C.
 - The influent and effluent sampling hoses need to be changed. Both sampling hoses were dirty.
 - The thermometers for both auto-samplers were last calibrated on May 20, 2013.
- G. Daily Sampling Meters
- The dissolved oxygen, the colorimeter, the turbidimeter, the pH and the residual chlorine meters were in good operational conditions.
 - The above-mentioned equipments were last calibrated on April 25, 2013.

H. Flow Measuring Devices

- The primary flow measuring device being used at the facility is a Parshall flume.
- A flow totalizer and a chart recorder were being used as secondary flow measuring devices.
- The flow totalizer was last calibrated on April 25, 2013.
- The chart recorder was last calibrated on April 25, 2013.

I. Effluent Quality

A grab sample of the effluent was taken by the operator at sampling point 001 during the inspection. Effluent was clear, no solids were observed. The results of the effluent sample taken during the inspection were as follows:

- Residual chlorine – 0.19 mg/l
- pH – 7.34 S.U.
- Temperature - 29.0 °C.
- Dissolved oxygen (DO) – 7.56 mg/l.
- Settleable solids- 0.00.
- Turbidity – 2.31 NTU

IV. RECORDS REVIEW

- A copy of the NPDES permit was available at the plant.
- Process Control, Sampling and Compliance Data Record
 - Copies of the daily sampling average reports were available for review.
 - A review of the DMRs for the period of April 2012 to March 2013 revealed the following exceedances:
 - March/2013 – Arsenic, Copper, Total Nitrogen, Cyanide Free.
 - February/2013 – Arsenic, Copper, Total Nitrogen.
 - January/2013 – Arsenic, Copper, Total Nitrogen.
 - December/2012 – Arsenic, Copper, Total Nitrogen.
 - November/2012 – Arsenic, Copper, Total Nitrogen, Cyanide Free.
 - October/2012 – Arsenic, Copper, Total Nitrogen, Cyanide Free.
 - September/2012 – Arsenic, Copper, Total Nitrogen, Enterococci (Geo Mean); Residual Chlorine.
 - August/2012 – Arsenic, Copper, Total Nitrogen, Enterococci (Geo Mean).
 - July/2012 – Arsenic, Copper, Total Nitrogen.
 - May/2012 – Residual Chlorine, Enterococci (Geo Mean).
 - Copies of the monthly sampling itineraries and sampling records were available for randomly review. Documents dated on January 2, 2013; February 20, 2013; March 26, 2013; and April 10, 2013; appeared to be updated.
 - Copies of the auto-samplers maintenance records and chain of custody data were available for review.
- Maintenance Records
 - Equipment operational status checklist (Form AAA-48) - The equipment operational status is being check on a daily basis. The following table details the equipment that was out of operation on date of the inspection.

EQUIPMENT	DATE	NOTIFICATION #
Poly Blend System	September 20, 2011	10072295
MCC Blowers Room Exhaust Fan	May 1, 2013	10162269
NPW Pumps Control Panel	April 10, 2013	10165453

EQUIPMENT	DATE	NOTIFICATION #
Influent Pump # 2 Wet Well	February 7, 2013	10150326
Flow Meter Filter Press	May 2, 2013	10170795
Flow Meter Old Plant	May 2, 2013	10170798
Wet Well Influent Exhaust Fan	May 2, 2013	10170968

2. Logbook – A random check of the Preventive Maintenance Schedule (PMS) for the months of January/2013 until April/2013 revealed that all work orders were performed as scheduled.
 3. Emergency generator checklist (Form AAA-500-C) – The operational status of the APU is being done on a bi-weekly basis, but having some limitations as described in Section III-E above.
- D. The Monthly Chlorine Report and the Chemical Products Report were reviewed from May/2012 until April/2013. Discrepancies were observed on the quantities reported for SO₂ as follows:

DATE	CHLORINE REPORT	CHEMICAL PRODUCTS REPORT
January/2013	269.5 INITIAL BALANCE 88.5 FINAL BALANCE	269.5 INITIAL BALANCE 88.5 FINAL BALANCE
February/2013	10495 INITIAL BALANCE 74.5 FINAL BALANCE	109.5 INITIAL BALANCE 74.5 FINAL BALANCE

V. CONCLUSION

Please note that Part C.5 of Attachment I of the permit requires the permittee to properly operate and maintain all facilities and systems for collection and treatment (and related appurtenances) which are installed or used to achieve compliance.